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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,066	07/24/2003	Mohamed Hamzah	139100USNP	9752

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PLANO, TX 75075

EXAMINER

CHERY, DADY

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/626,066	Applicant(s) HAMZAH ET AL.	
	Examiner Dady Chery	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/24/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4-26-04 8-26-03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 recites the limitation "the second network node" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 19 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Erimli et al. (US Patent 6,405,258, hereinafter Erimli).

Regarding claims 1 and 23, *Erimli discloses a network system (Fig. 6), comprising:*

a first network node (14a), comprising: an input(90a) for receiving a packet,

a buffer(58a), coupled to the input and for storing the packet,

circuitry for detecting when a number of packets stored in the buffer exceeds a buffer storage threshold; and circuitry, responsive to a detection by the circuitry for detecting that the number of packets stored in the buffer exceeds the buffer storage threshold, for issuing a pause message along an output to at least a second network node (Abstract);

wherein the pause message(Fig. 5b) indicates a message ingress address and a message egress address, the message ingress address and the message egress address corresponding to a network ingress address and a network egress address in a congestion-causing packet received by the first network node (Col. 12, lines 57 –66 and Col. 2, lines 61 - 63);

wherein the pause message commands the second network node to discontinue, for a period of time, transmitting to the first network node any packets that have the message ingress address and the message egress address (Col. 3, lines 36 - 39). Where the transmitting station is considered as the second network node as described by the instant application.

Regarding claim 19, *Erimli discloses the system (Fig. 6)*

and further comprising a plurality of network nodes (14a,14b);

wherein the plurality of network nodes comprise the first network node (14a);

and wherein each network node in the plurality of network nodes comprises:

an input for receiving a packet (90a,90b);

a buffer, coupled to the input and for storing the packet (58a,58b);

circuitry for detecting when a number of packets stored in the buffer exceeds a buffer storage threshold (abstract);

circuitry, responsive to a detection by the circuitry for detecting that the number of packets stored in the buffer exceeds the buffer storage threshold, for issuing a pause message along an output to a different network node in the plurality of network nodes; wherein the pause message indicates a message ingress address and a message egress address, the message ingress address and the message egress address corresponding to a network ingress address and a network egress address in a congestion-causing packet received by the first network node (Col. 3, lines 32 –39); and

wherein the pause message commands the different network node to discontinue, for a period of time, transmitting to the network node that issued the pause message, any packets that have the message ingress address and the message egress address (Col. 3, lines 36 –39). Where the transmitting station is considered as the second network node as described by the instant application.

For the ingress (SA) and egress (DA) message see Fig. 5B.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1- 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erimli in the view of Nelisse (European Application 1079660, hereinafter Nelisse).

Regarding claim 2, Erimli discloses *a system wherein the first network node* (fig. 6, 14a). Erimli discloses a circuitry for issuing a pause message in response to detection of a congested buffer in single network ingress and egress address (Col. 3, lines 25 – 39).

Erimli does not expressly mention the circuit for designates a plurality of virtual space and detecting packet congestion in at least one congested virtual space. Erimli also fails to teach the buffer storage threshold represents a global threshold indicating packet occupancy for all packets in all the plurality of virtual space regions.

However, Nelisse teaches a plurality of virtual space (Virtual Channel VC) (see figure, and Col. 5, [0024]), a partial buffer threshold (PBTi2) for detecting packet congestion in at least one congested virtual space and a global buffer threshold (GBTmin, GBTmax) indicating packet occupancy for all packets in all the plurality of virtual regions (Abstract).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to the plurality of virtual space and a global threshold for monitoring the data flow control (Abstract).

Regarding claim 3, Erimli discloses circuitry for detecting packet congestion in response to packet occupancy in a buffer (Col. 3, lines 32 –39).

Erimli fails to teach the congested virtual region space. However, Nelisse teach the congested virtual region (Col. 5, [0024]).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the congested virtual space for monitoring the data flow control in the system network (Abstract).

Regarding claim 4, Erimli discloses the pause message has a destination source address (Fig. 5B), which could correspond to one congested space region (Col. 12, lines 58 64). But Erimli fails to expressly mention the at least one congested virtual space.

However, Nelisse teach the at least congested virtual region (Col. 5, [0024]).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the congested virtual space for monitoring the data flow control (Abstract).

Regarding claim 5, Erimli discloses *the pause message indicates the period of time* (Fig. 5B).

Regarding claim 6, Erimli discloses the *first network node further comprises circuitry for determining the period of time in response to an amount of a number of packets in the buffer and exceeding the region threshold* (Col. 3, lines 1 – 39).

Erimli fails to teach the at least one congested virtual space region. However, Nelisse teach the at least congested virtual region (Col. 5, [0024]).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the congested virtual space for monitoring the data flow control (Abstract).

Regarding claims 7 and 13, Erimli discloses a system of two different queues (Fig. 2). One queue stores packet with high priority (410b), which is considered as the first class packet. Another queue stores packet with low priority (410a), which is considered as the second class packet as described by the instant application (Col. 12, lines 1 – 21

Regarding claims 8 and 14, the second buffer (Fig.2, 410a) disclosed by Erimli is not divided in to plurality of virtual space region.

Regarding claims 9 and 15, Erimli fails to teach *the circuitry for designating is further for designating a plurality of virtual space regions in the second buffer.*

However, Nelisse teaches *the circuitry for designating is further for designating a plurality of virtual space regions in the second buffer* (see figure, and Col. 5, [0023] – [0024]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Nelisse into the teaching of Erimli for the purpose of controlling flow control in the network system (Abstract).

Regarding claims 10 and 16, Erimli discloses the system (Fig. 2)

wherein the buffer storage threshold comprises a first buffer storage threshold (Fig. 5A, 510); wherein the circuitry for detecting is further for detecting when a number of packets stored in the second buffer exceeds a second buffer storage threshold (Col. 12, lines 8 –9) ;

wherein the circuitry for issuing a pause message along an output to at least a second network node is further responsive to detection by the circuitry for detecting that the number of packets stored in the second buffer exceeds the second buffer storage threshold (Col. 12, lines 33 – 37).

Regarding claims 11 and 17, Erimli discloses *the system further comprising the second network node (Fig. 6, 14b).*

Regarding claim 12 and 18, the second node (Fig. 6, 14b) is directly-connected to the first network node (14a).

10. Claims 20 –22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erimli in the view of Ivancovsky et al (US Application 2004/0136359, hereinafter Ivancovsky).

Regarding claim 20, Erimli discloses all the limitation of claim 20 except *the network node comprises a Metro Ethernet network node.*

However, Ivancovsky teaches *the network node comprises a Metro Ethernet network node* (Fig. 1, [0049]).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a Metro Ethernet network for connecting subscribers and businesses to a Wide Area Network such as the Internet.

Regarding claims 21 and 22, Erimli discloses the first network node (Fig. 6), but Erimli fails to teach the first node comprising an edge node in a Metro Ethernet network.

However, Ivancovsky teaches an edge node in Metro Ethernet Network (Fig.1, 130). Further it is inherent to the edge node to additional information comprising the ingress and egress of the Metro Ethernet network because in order for the edge network node to communicate to Metro Ethernet network it needs its address.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a Metro Ethernet network for connecting subscribers and businesses to a Wide Area Network such as the Internet.

Conclusion

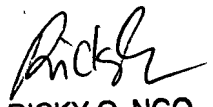
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dady Chery whose telephone number is 571-270-1207. The examiner can normally be reached on Monday - Thursday 8 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CHERs ludy 04/20/07


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SUPERVISORY PATENT EXAMINER